



Todd Drummond

The National Testing Initiative of the Kyrgyz Republic, A Stakeholder Survey

Award Number # 116-A-00-03-00014-00

SO 3.4.1 Democratic Values and Market Oriented Skills are Widely Integrated into the Curriculum

**USAID/CAR Regional Mission
Acquisition and Assistance Office
Department of State
7030, Almaty Place
Washington DC 20521-7030**

Grantee: American Councils for International Education: ACTR/ACCELS

April 2004



Assessing the Impact of the New Testing and Enrollment System of the Kyrgyz Republic:

A Measurement of Impact through a Survey of Key Stakeholders

American Councils for International Education

April 20, 2004

Overview

The key activity of USAID's "National Testing Initiative" of the Kyrgyz Republic is the administration of the National Scholarship Test (NST). In 2002 and 2003, a new testing and enrollment system for the Kyrgyz Republic (KR) was developed by American Councils together with the Ministry of Education (MOE). The goals of the new testing and enrollment system (further- "system") were (1) to design quality testing instruments, capable of discriminating between university applicants for the allocation of government scholarships for higher education, and (2) to promote wide and fair access to higher education through the development of a transparent enrollment system.

This report summarizes the results of a survey designed and executed by American Councils over the last four months. The stakeholders surveyed were school directors from throughout the KR. The data collected will assist USAID in measuring the impact of the new system on access to higher education as well as understand what key stakeholders think about this major education reform. School director feedback is essential for the project team to improve the effectiveness of the implemented reform. The survey was specially designed to evaluate the impact on rural students to the greatest extent possible.¹ Specifically, data were collected to determine the following:

- Increases/decreases in the proportion of scholarships received by students from rural regions in 2002 and 2003;
- Increases/decreases in number of schools with at least one or more scholarship winner in 2002 and 2003;

The survey also elicited opinions from school directors on the following:

- The effectiveness of the testing instruments in discriminating between students;
- The impact of the National Scholarship Test (NST) on student motivation to learn;
- The impact of the new system on teaching;

¹ For a full report on other aspects of interest (gender, language issues, etc.) see "The National Scholarship Test of the Kyrgyz Republic, 2003: A First Look."



- The perception of fairness and openness of the new system in comparison to the previous system.

KEY FINDINGS

The most significant finding of the survey was that scholarships have been made available to a wider proportion of the population since the new system was introduced. From the sample surveyed, between 2001 and 2003, there was a 13.4% increase in the number of rural schools throughout the Kyrgyz Republic (KR) with at least one or more student earning a full government scholarship for higher education. While according to our database the actual increase is much greater, the fact that school directors are acknowledging this trend is an important milestone in garnering stakeholder support for the project. Significantly, respondents also reported an increase of 64% between 2001 and 2002, the year the NST was introduced. According to survey respondents, the new system has also impacted both student and teacher motivation in a positive direction. Finally, the survey indicates strong stakeholder support for independent testing (87%). That is, this stakeholder community both understands and supports the utilization of a non-governmental agency to distribute full governmental scholarships for higher education: a task that had previously been undertaken exclusively by state agencies for over 80 years.

Survey Method

The stakeholders surveyed were public school directors from throughout the KR. School directors were chosen for several reasons. First, unlike representatives of institutions of higher education, their institutions have no direct financial interest in which testing regime is utilized by the Government of Kyrgyzstan (GOK). Universities, on the other hand, used to conduct scholarship testing throughout the KR. Considerable sums of money as well as decision-making power over enrollment were concentrated in their hands. Parents, too, have a direct interest in the success of their own children and their own individual experience is likely to influence their opinions of the new systems.

Almost every school in the KR has had at least one or more student sit for the NST in each of the last three years. School directors have an interest in seeing that their best and brightest students have a fair chance to enroll at university. They are also aware of the general academic capabilities of the examinees from their schools. Further, in most cases in 2003, school directors collected testing score reports on behalf of their students and had a chance to analyze and compare testing results with the school grades of particular groups of students. Finally, school directors follow the trends from year to year and thus know how the new systems compare with the previous systems in terms of fairness and transparency. Most schools keep records on numbers of graduates who go on to university, which students get budget places, etc. Therefore, school directors were the logical choice for the project when selecting respondents for the questionnaire.

A stratified random sample of school directors were chosen to participate in the survey, with important consideration given to proportional demographic representation (urban and rural schools represented), language of instruction, and gender. The survey questionnaires were designed for scanner processing. The survey was printed on two pages of A4 paper for each language. The survey was conducted in the Kyrgyz and Russian languages. The survey contained sixteen questions. Before distributing the surveys, the project team staff briefly instructed the directors on how to fill out the “scantron” sheet questionnaire. Questionnaires which were filled in incorrectly (for example, some directors underlined the bubbles



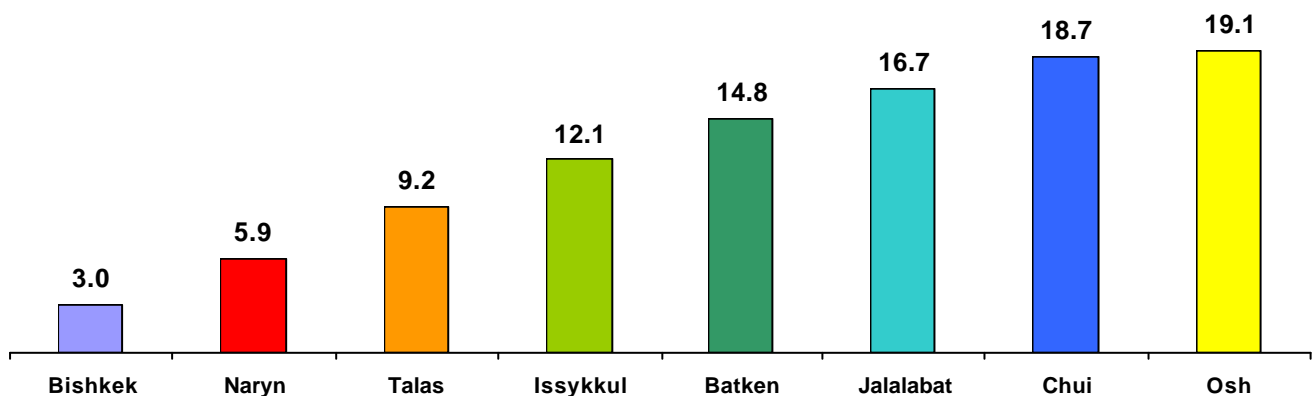
instead of filling them out) were marked as BLANK. Some questions allowed multiple answers (“select all answers that apply”) while some questions had mutually exclusive answers for a more precise response. The total time for filling out the survey was approximately 10 minutes. After scanning the survey results, each field of responses was saved in a specially created MS/ACCESS database. The responses were summarized using Structure Query Language (SQL). Then, the results were put into an MS Excel table and graphs for this report.

In order to maximize the number of directors surveyed in the shortest time possible, the survey was conducted during regional meetings of school directors in their home regions. These meetings were organized by the project team to coincide with the scheduled work of the educational departments. The first round of surveys was conducted between the 15th and 28th of December, 2003, in the Issyk-Kul, Osh, Talas, Chui Valley and Bishkek regions. Three hundred and forty-eight directors participated in round one. The second round of surveys was conducted between the 9th and 13th of March, 2004, in the Batken, Naryn, Osh, Talas, Jalalabat, and Issyk-Kul Oblasts. Six hundred directors participated in round two.² Despite weather and time constraints, after two rounds of survey administration, the project team managed to collect 948 total surveys - this represents approximately 50% of all schools in the KR.

The Survey Sample Population (charts 1-6)

According to MOE data, there are 1,871 schools in the KR with 11th form (grade) students. The oblasts (regions) with the highest percentages of director respondents were from the regions with the highest absolute number of examinees. The Osh, Chui Valley, and Jalalabat Oblasts were the most populous in terms of number of students who sat for the 2003 test, (chart 1).³

1. Distribution of the surveyed schools by oblast
(%)



Directors surveyed had considerable experience working within the education system of the KR, (chart 2), with over 90% of those surveyed having more than ten years experience working in the education sector.

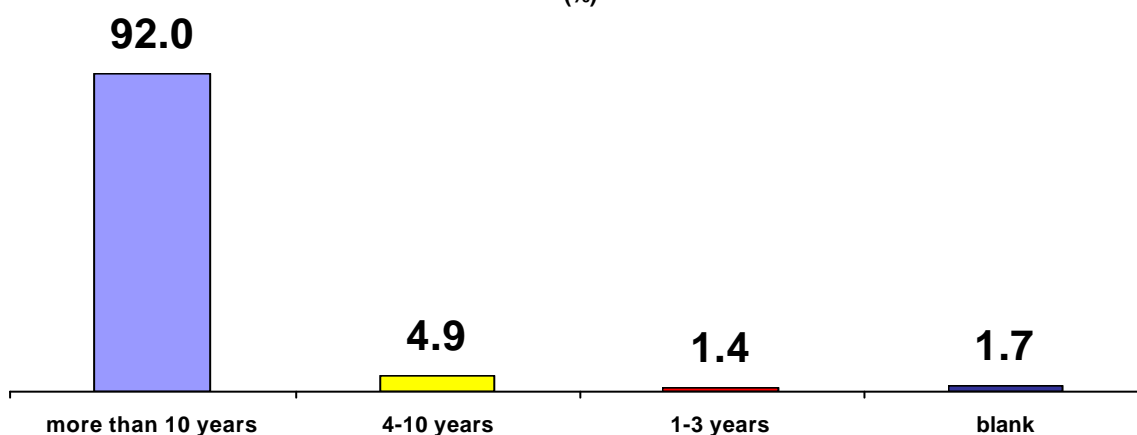
² The project team did NOT require that school directors fill in the forms in the language of instruction of their schools. We know of cases where Kyrgyz and Uzbek language school directors elected to fill in the forms in the Russian language. Therefore, the language of the survey should not be confused with language of instruction at a given school. In round one, 139 surveys were filled out in Russian and 209 surveys were filled out in Kyrgyz. In round two, the numbers were 302 surveys in Russian and 298 surveys in Kyrgyz respectively.

³ The charts presented in the report do not reflect the chronological order of the questions in the survey.



The majority of the school directors surveyed were women, 53.3% (chart 4).⁴ The proportion of urban and rural schools surveyed reflected the balance between of the rural and urban schools in the Kyrgyz Republic. Seventy-nine percent of the school directors surveyed were from rural areas, just 6% short of the exact proportional representation for the KR (chart 5).⁵ In terms of language of instruction, the sample distribution also reflected the overall language pattern throughout the republic. Seventy percent of all examinees in 2002 and 2003 took the NST in the Kyrgyz language. Sixty percent of our respondents were from Kyrgyz language schools while another 17.8% were from “mixed” language schools. Mixed language schools are schools that offer two or more languages of instruction, usually Kyrgyz and Russian (chart 6).

2. How long have you been working in the educational system?
(%)

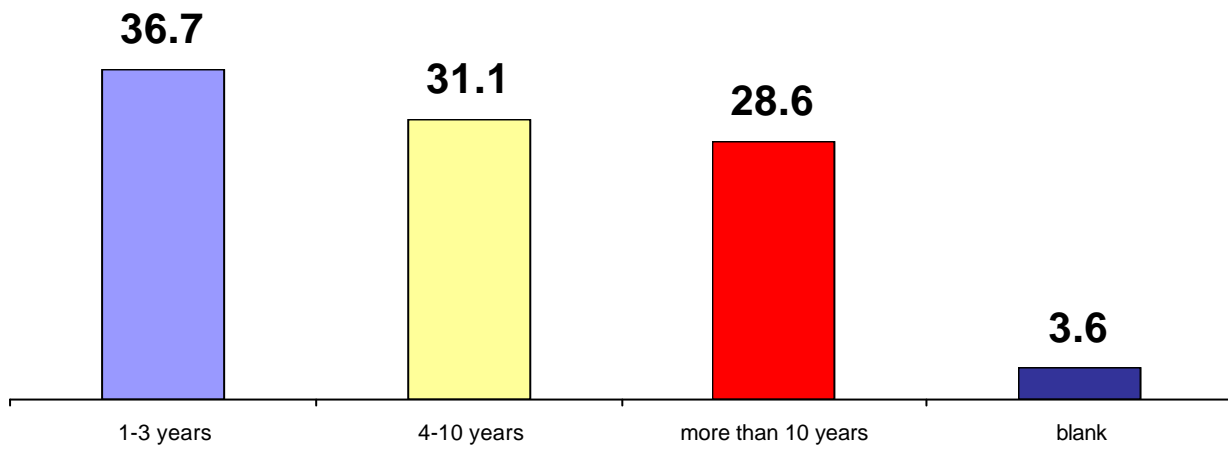


⁴ However, according to the data provided by the National Statistics Committee for 2001-2002, 77.3% of teachers in the KR are women and 22.7% are men (“Gender Statistics: Men and Women in the Kyrgyz Republic”, Bishkek, 2002, p.42). It follows that if our sample is representative, while few men work as teachers today in the KR, they are proportionally over-represented as *school directors*.

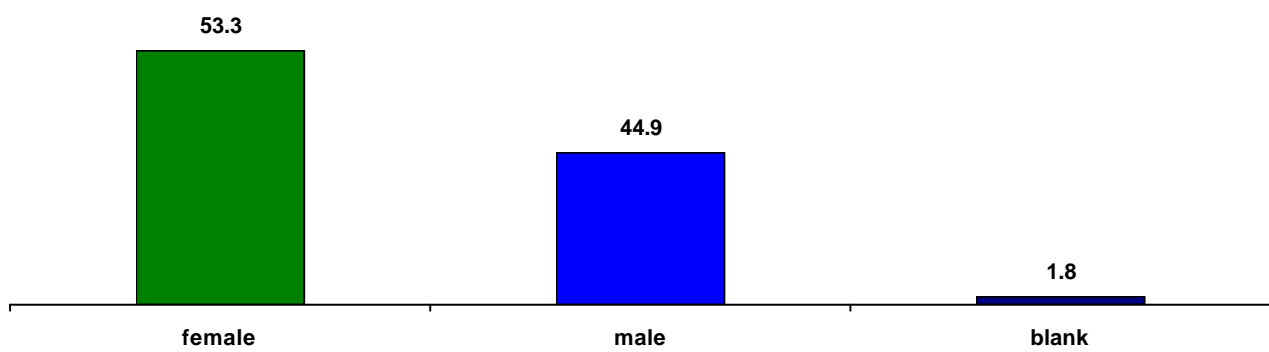
⁵ 85% of all schools in the KR are located in rural areas.



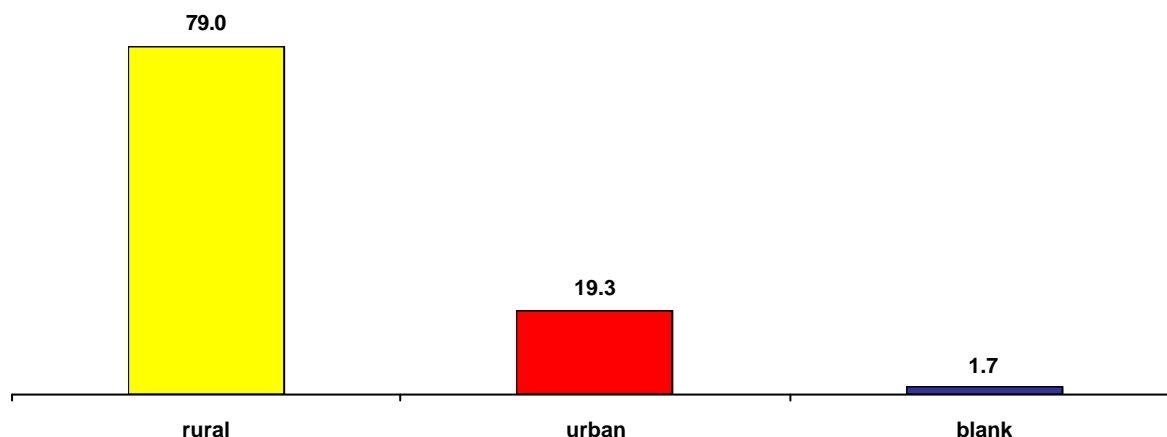
3. How long have you been working as a school director?
(%)



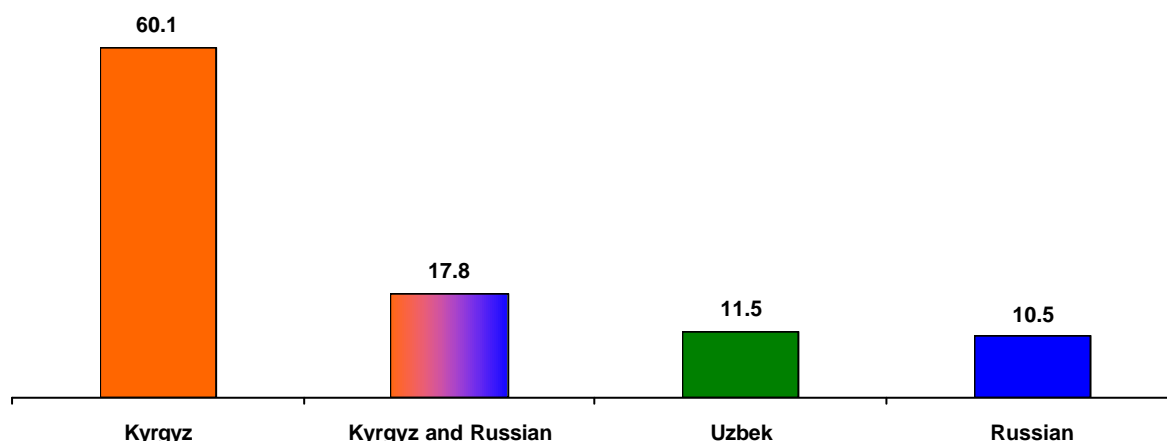
4. Please indicate your gender
(%)



5. Distribution of the surveyed schools by location (urban/rural)
(%)



6. Distribution of the surveyed schools by language of instruction
(%)



Wider access to higher education for rural students (charts 7- 8)

An important goal of the survey was to determine the extent to which the new system led to greater access to higher education on the part of rural students. Establishing a baseline from available statistics for 2001 was not possible as data on student demographics were not kept by the Ministry or by universities. Therefore, the team elected to survey school directors in order to gather this data. Then, we measured the extent to which the overall numbers of individual students receiving scholarships and percentage of rural school representation in 2002 and 2003 increased or decreased from 2001.

According to the responses of the school directors, the percentage of their students receiving scholarships overall increased slightly each year from 2001 to 2003. For both urban and rural schools, there was a 2.6% increase in reported number of scholarship recipients from 2001 to 2003 amongst those surveyed. As directors were asked to select an approximate “range of answers” in terms of overall quantity of



students- 0, 1-5, 6-10, 10- 15, etc. the data show us a general trend, not absolute numbers. Most schools keep such data and their reporting is thus fairly accurate.

Percentage of Students Receiving Scholarships

Year	Percent Students Receiving Overall	Percent Rural Students Receiving
2001	13.0%	11.2%
2002	15.4%	12.9%
2003	15.6%	13.8%

Significantly however, the data were clearer in regard to measuring broader participation amongst the schools in terms of being represented *by at least one scholarship winner*. The survey offered the option of “0” in terms of number of winners at a given school for each year (see question 8). The option of either “0” or “1 or more” provided a clearer picture than the “range” of numbers. Of all the schools surveyed, for 2001, 69.8% had at least one or more scholarship winner. This percentage grew to 76.4% in 2002 and by 2003 the percentage rose to 78.9% of the 600 schools surveyed. For rural schools, the overall increase in the percentage of schools with one or more winners was from 71.4% to 84.8% between 2001 and 2003. This is a substantial 13.4% increase overall. For 2002, the increase reported was 6.4% from 2001, the year when there was no NST. While the collection of these data suffers from some limitations in accuracy (relying as it does on school records and directors’ memories), a general upward trend is clearly evident. In the opinion of our director respondents, the NST has provided wider access to university scholarships, including an increase in winners from 2001 to 2002, the year the NST was first introduced.

Percentage of schools where graduates had *at least one NST winner*:

Year	All Schools Surveyed	Rural Schools Surveyed
2001	69.8%	71.4%
2002	76.4%	77.8%
2003	78.9%	84.8%
Total Change	+9.1%	+13.4%

The fact that 31% of all school directors in the KR reported an increase in numbers of schools with one or more scholarship winner coincides with the project team data. The project team tracks students through student identification numbers assigned by school at the time of test registration. According to internal project data, overall school representation (those having winners) did in fact increase dramatically - by 28% for rural schools, by 28.1% for urban schools, and by 27.8% overall between 2002 and 2003 (see figure # 1 below).⁶

Two factors explain the greater dispersion of scholarship winners among secondary schools in 2003. In 2002, due to changes in the law, some secondary schools had no graduating students. Secondly, not all schools with eligible students encouraged students to take the NST in 2002. In 2002, only 13,000 students took the NST. That year 5,000 scholarship slots were awarded to graduates of 728 secondary schools. By 2003, due to a larger graduating class and increasing awareness of the NST, 36,000 students

⁶ Due to the fact that 1.7% of all respondents did not indicate a demographic designation, the total increase is 27% when categories are combined, less than the 28% and 28.1% when broken down by urban and rural category.



took the NST and the 5,000 scholarship slots were distributed among 1249 schools, an increase of 521 total schools represented by one or more winner.

1. Demographic Data on School Participation and Scholarship Distribution for 2002 and 2003⁷

It should also be noted that while there was an overall increase in the percentage of schools represented throughout the KR from 2002 to 2003, the competition amongst those participating schools to get one or more students enrolled with a scholarship increased from 2002 and 2003. Note:

2002	# of Schools in KR	# of Schools Participating	% of Schools Participating	# Schools w/ Winners	% Schools w/ Winners for all KR schools
Rural	1491	638	42.8%	548	36.8%
Urban	380	191	50.3%	180	46.4%
Total	1871	829	44.3%	728	38.9%
2003	# of Schools in KR	# of Schools Participating	% of Schools Participating	# Schools w/ Winners	% Schools w/ Winners for all KR schools
Rural	1491	1408	94.4%	966	64.8%
Urban	380	357	93.9%	283	74.5%
Total	1871	1765	94.3%	1249	66.7%⁸

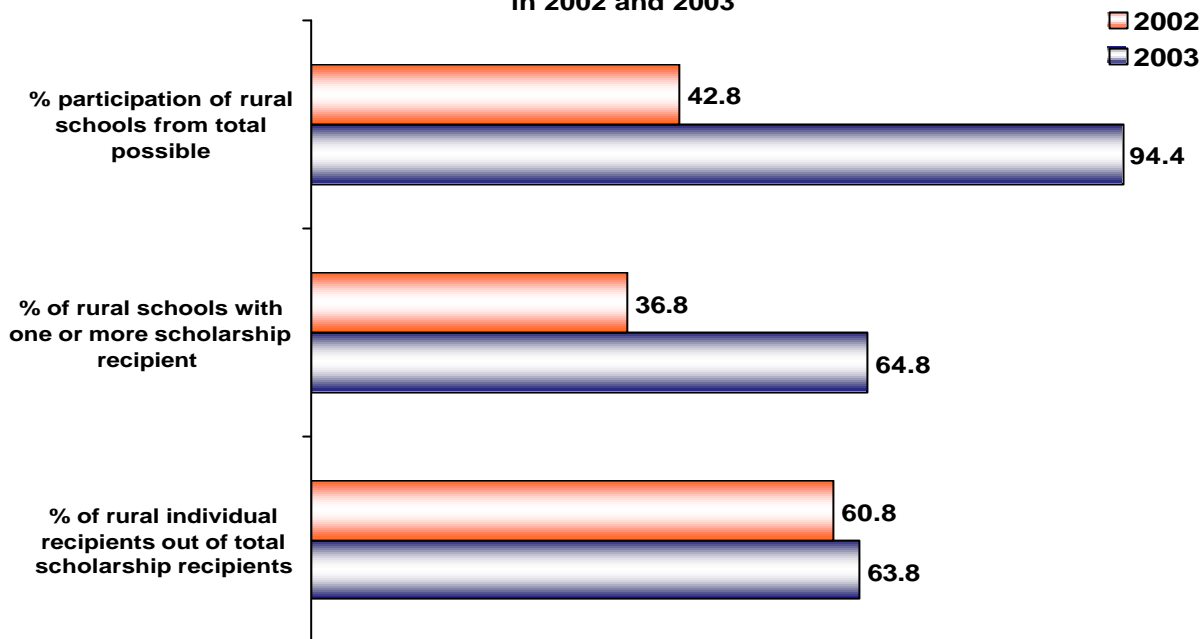
2002	Schools w/ Winners as a % of those Participating Schools (not as percentage of all schools in the KR)
rural	85.9%
urban	94.2%
total	87.2%

2003	Schools w/ Winners as a % of those Participating Schools (not as percentage of all schools in the KR)
rural	68.6%
urban	79.3%
total	70.8%

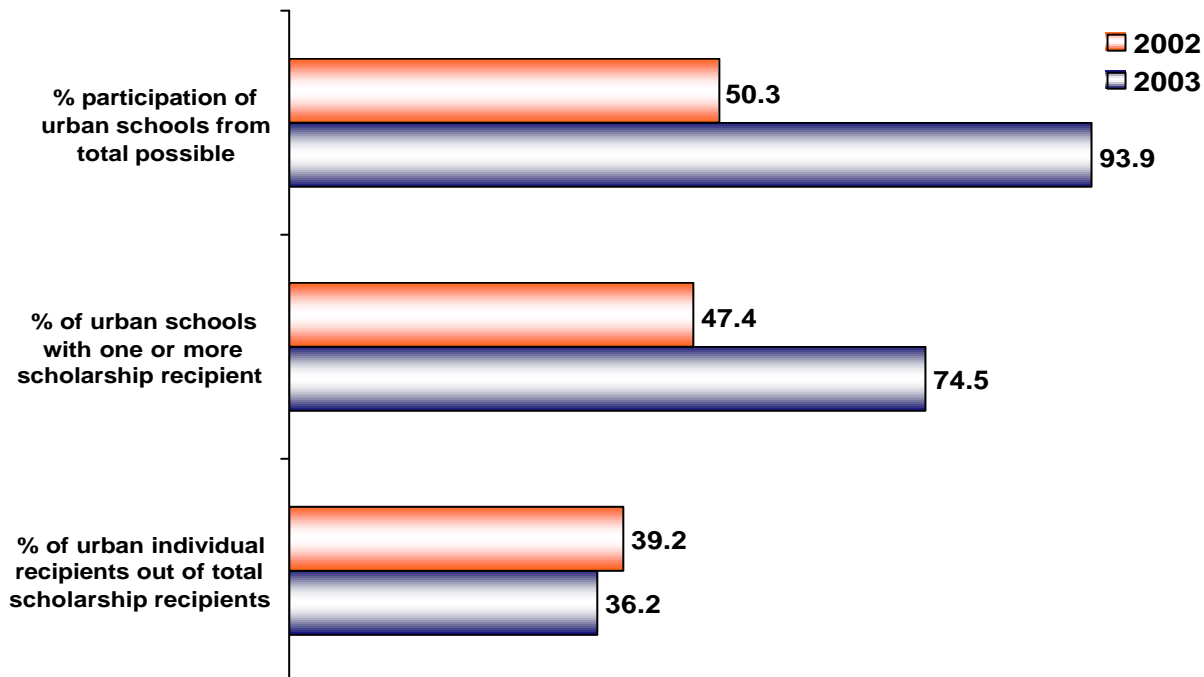
⁷ Data from the project team database.



7. Rural School Participation and Scholarship Distribution for NST in 2002 and 2003



8. Urban School Participation and Scholarship Distribution for NST in 2002 and 2003



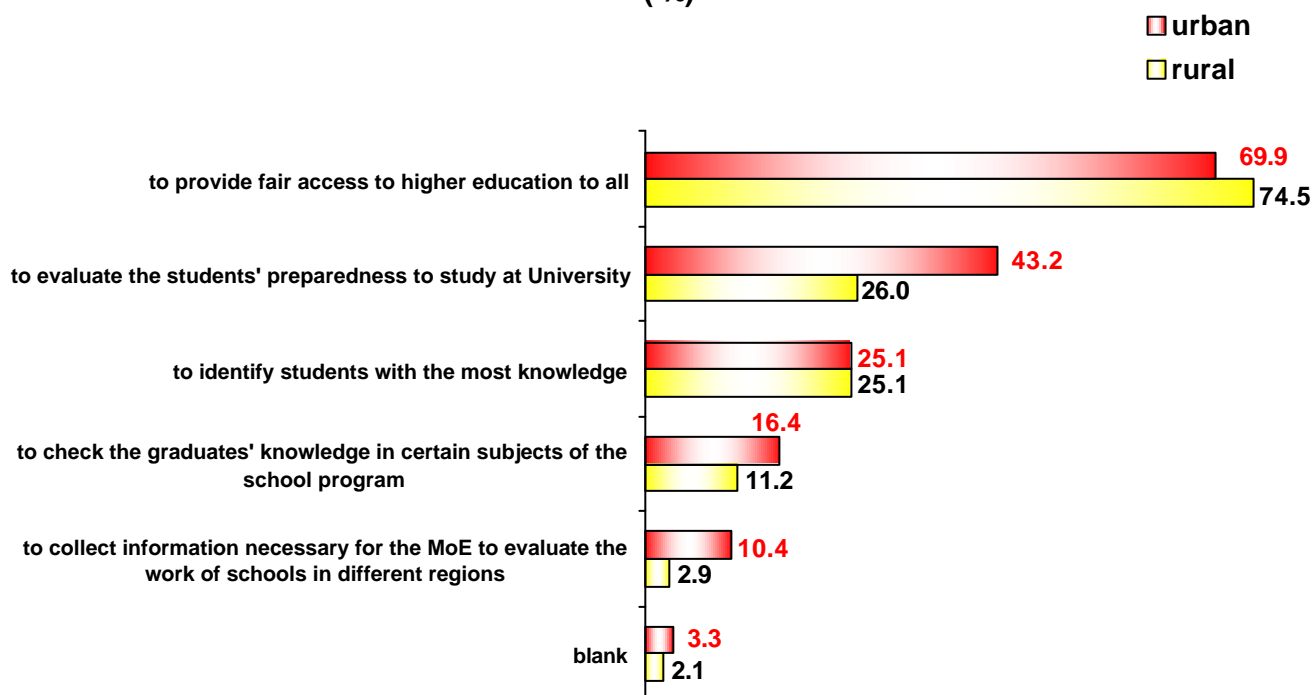


Effectiveness of New Testing and Enrollment Systems (charts 9-12)

For question nine (“What, in your opinion, is the main goal of the National Scholarship Test?”), directors could mark multiple answers. As can be seen from the chart below, the most popular response was “that the main purpose of the NST was to provide fair access to higher education,” (74.5% of rural directors, 69.9% of urban directors). The second most popular response was “to evaluate students’ preparedness for study at institutions of higher learning.” Interestingly, the gap between urban and rural directors was large in marking the second most popular response (43.2% of urban directors marked this response, 26% of rural directors). In fact, the directors’ selections were the two main goals of the NST as articulated by the project team in the public information campaign over the last year. This finding demonstrates that on the whole, most school directors understood the aims of the NST and the new enrollment system, though the data seem to indicate that urban directors perhaps understood the overall goals better.

Another small gap exists between urban and rural directors as to whether a goal of the test was to “collect information to enable MOE evaluate schools work in different regions” (10.4% of urban directors marked this answer while only 2.9% of the rural directors marked this response). The project team publicly stated throughout that NST test results *should not* be used as a measure of educational quality and this helps explain the low numbers for this choice. From a political standpoint it was essential that directors *did not* feel that the tests were simply an indirect way to evaluate their performance, and thus something to be feared or thwarted.

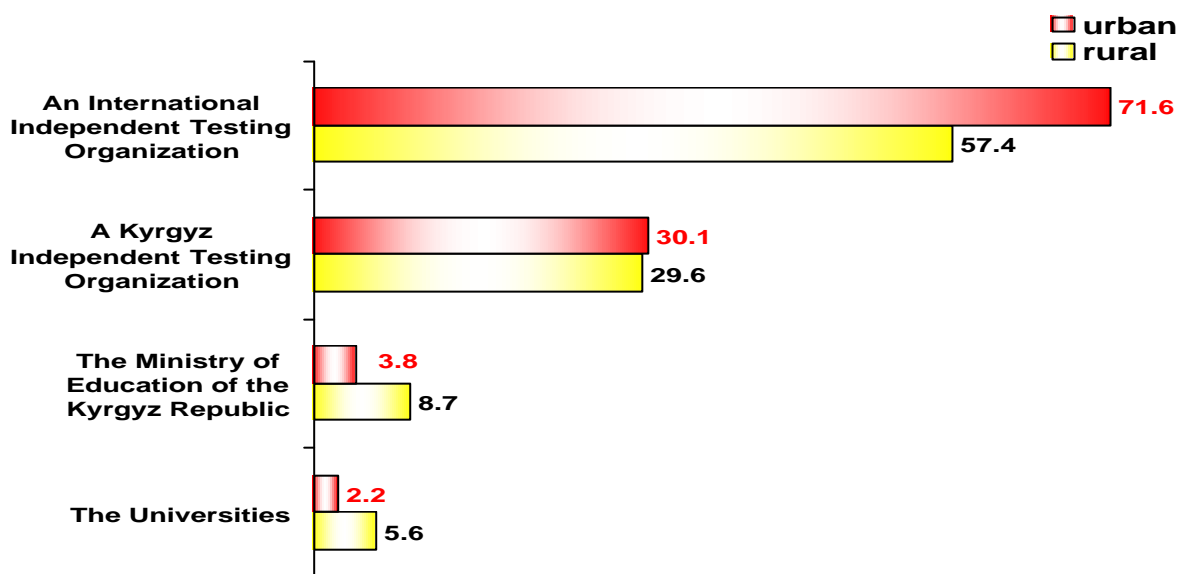
9. What, in your opinion, is the main goal of the National Scholarship test (%)





In question ten (“Which of following organizations should conduct the National Scholarship Test?”) most respondents selected “an international independent testing organization,” (71.6% among urban directors, 57.4% among rural directors). The second choice was “an independent Kyrgyzstani testing agency” (30.1% urban, and 29.6% rural). Overall, total support for an independent testing agency (international and local combined) was 87.8%. The least popular choice for who should conduct the National Scholarship Test was universities. This option was selected by only 2.2% of urban school directors and 5.6% of rural school directors.

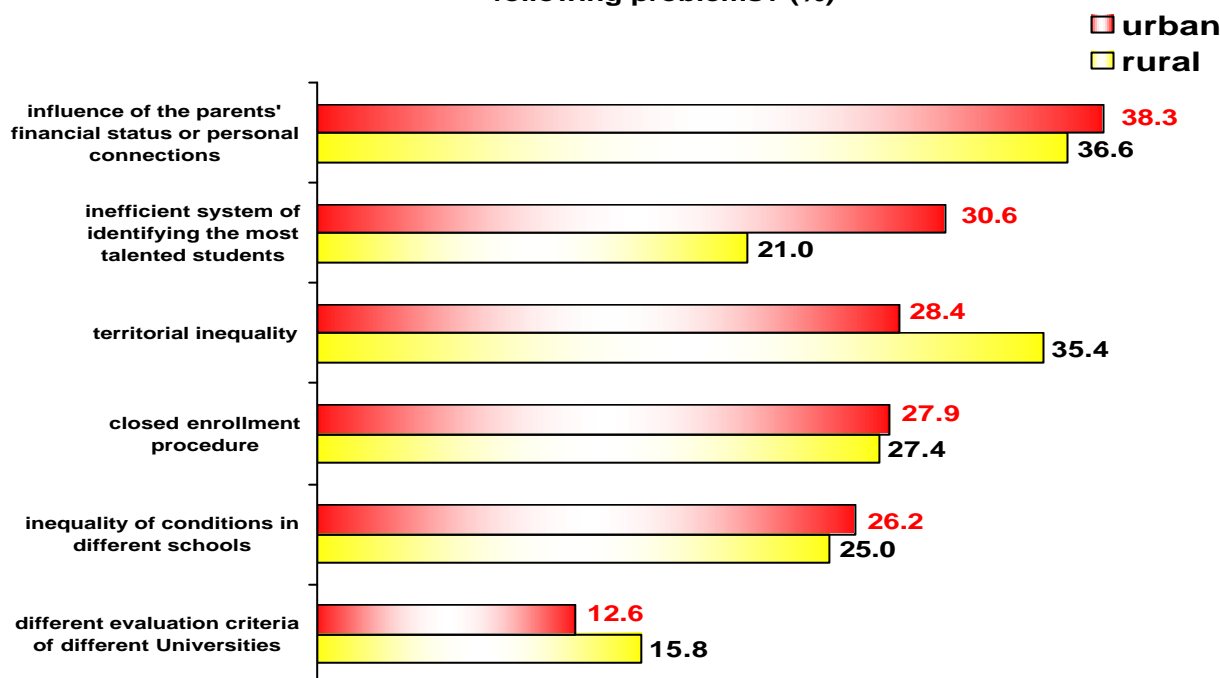
10. Which of the following organizations should conduct the National Scholarship Test? (%)





In question eleven directors were asked “**Do you think the National Scholarship Test helped overcome any of the following factors?**” Respondents could mark multiple answers. The most frequently selected answer (38.3% urban, 36.6% rural) was that “the influence of the parents’ financial status or personal connections” had been minimized due to the new system. Understandably, a larger percentage of rural directors felt that the NST helped overcome territorial inequality (35.4% rural, 28.4% urban). Indeed, rural students benefited from both test administration in the regions and the quota system which ultimately resulted in proportional representation in the scholarship distribution in 2003.⁹ However, it is important to underscore that more than one quarter of *urban* administrators also expressed the opinion that the NST helped to overcome territorial inequality.

11. Do you think the National Scholarship Test helped overcome any of the following problems? (%)

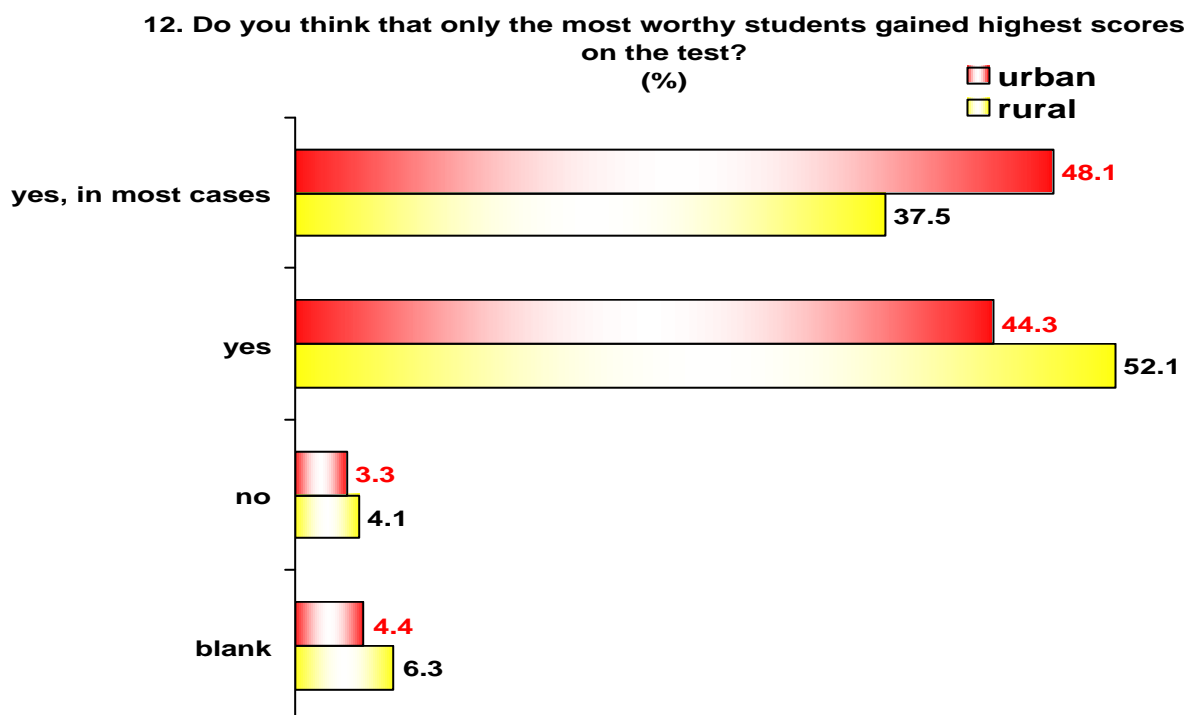


⁹ For more on the exact breakdown of winners and data in general, see “The National Scholarship Test, 2003: A First Look.”



In question twelve (“**Do you think that only the most worthy students earned the highest scores on the test**”), the data show that an overwhelming majority of directors felt that test scores corresponded, or in most cases corresponded, to the academic abilities of their students. Ninety-two percent of urban directors and 89.6% of rural directors were positive about this aspect of the test. Only 3.3% of the urban and 4.1% percent of the rural directors responded that they did not think that the highest test scores were earned by the most worthy students. This finding demonstrates that the school directors felt strongly that the testing instrument was effective in discriminating between the strongest and weakest students.

Most directors were able to make judgments on how well the NST correlated with students’ abilities because in many regions directors (or their representatives) picked up test certificates (score reports) from the regional centers on behalf of their students. This was certainly the case in rural areas, though perhaps less so in cities and in Bishkek. On the other hand, through conversations with school directors we learned that while many school directors actively sought this information and tracked how their students scored, some did not. Again, it was important for us to survey a large proportion of schools in order to ascertain the general trend.



Incentives to Learn and Incentives for Pedagogical Change (charts 13, 14)

The responses to question thirteen (“**Do you think that the NST of 2003 and 2003 has increased students’ motivation to learn?**”) indicate that throughout the KR more than 90% of school directors feel that the NST has strongly or moderately increased student motivation to learn. Only 6% of urban respondents and 3.2% of rural respondents did not think the NST had increased students’ motivation to learn. Further, in question fourteen, directors were asked “**Do you think that the NST has influenced**

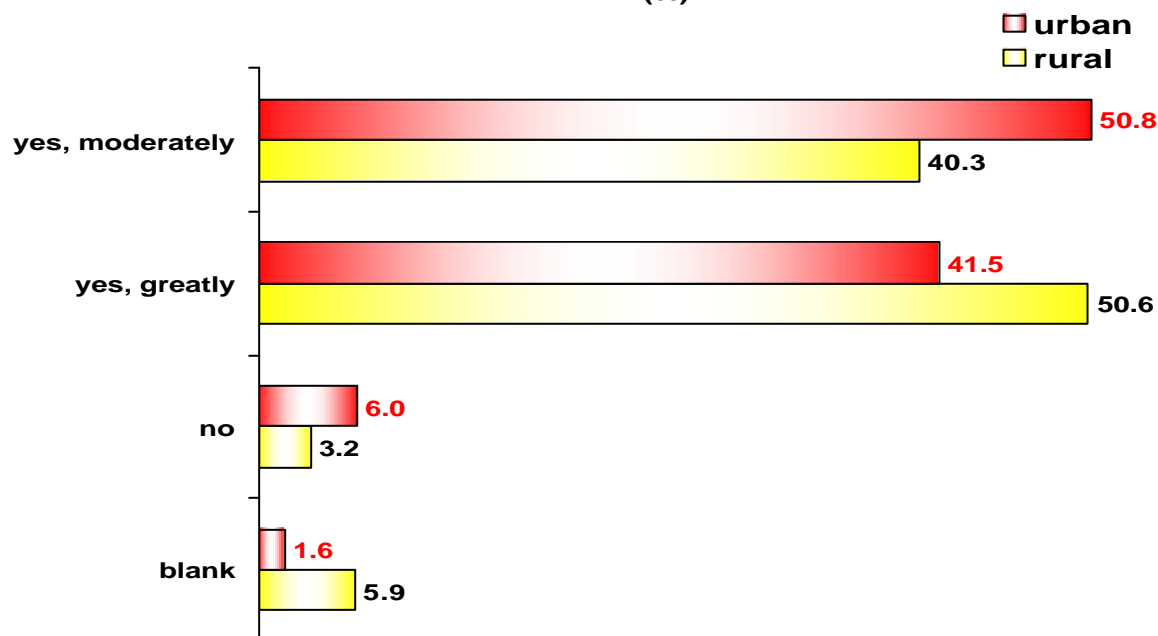


teaching in schools?” The vast majority of respondents indicated that the test had influenced teaching in their schools (83.1% urban directors and 84.6% of rural directors).

These survey results indicate that school directors believe that both student motivation to learn and teaching practices have been positively impacted by the introduction of the new system. As student success on the NST is determined by reasoning and critical thinking skills, a strong incentive has been created for both teachers and students to learn such skills. The use of aptitude testing as the basis for the NST has already opened the debate on “skills versus knowledge” in terms of curricular focus in the KR. There is synergy between the objectives of the NST project and other donor efforts to impact teaching methodologies in the KR. High sales numbers of study guides for test preparation as well as seminars organized independently by high school and university teachers to debate the integration of new skills into the curriculum are now occurring and are likely to continue as long as the test remains a high stakes test (and fairly administered).

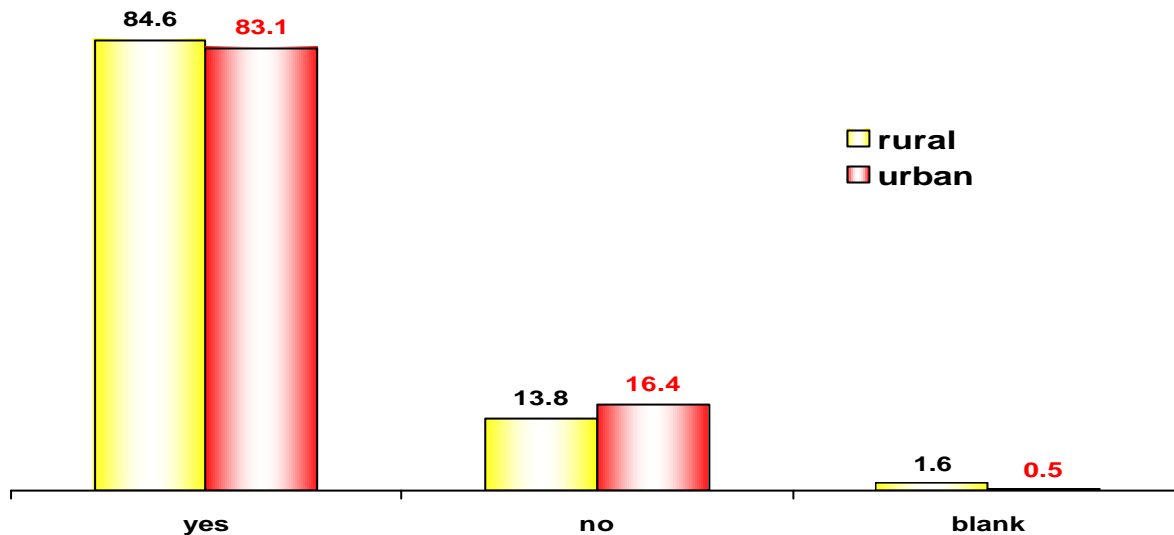
Promoting USAID and other donor teacher training efforts as necessary for success on the NST will further promote USAID objectives in developing the critical mass for curricular reform that is so necessary at this time. However, this process needs to be managed wisely and in close cooperation with MOE and all interested stakeholders to avoid the negative sides of “the washback” effect like teaching exclusively to the test or wholesale abandonment of other valuable skills, knowledge, and other “non-tested” domains.

13. Do you think that the National Scholarship Test of 2002 and 2003 increased the students' motivation to learn?
(%)





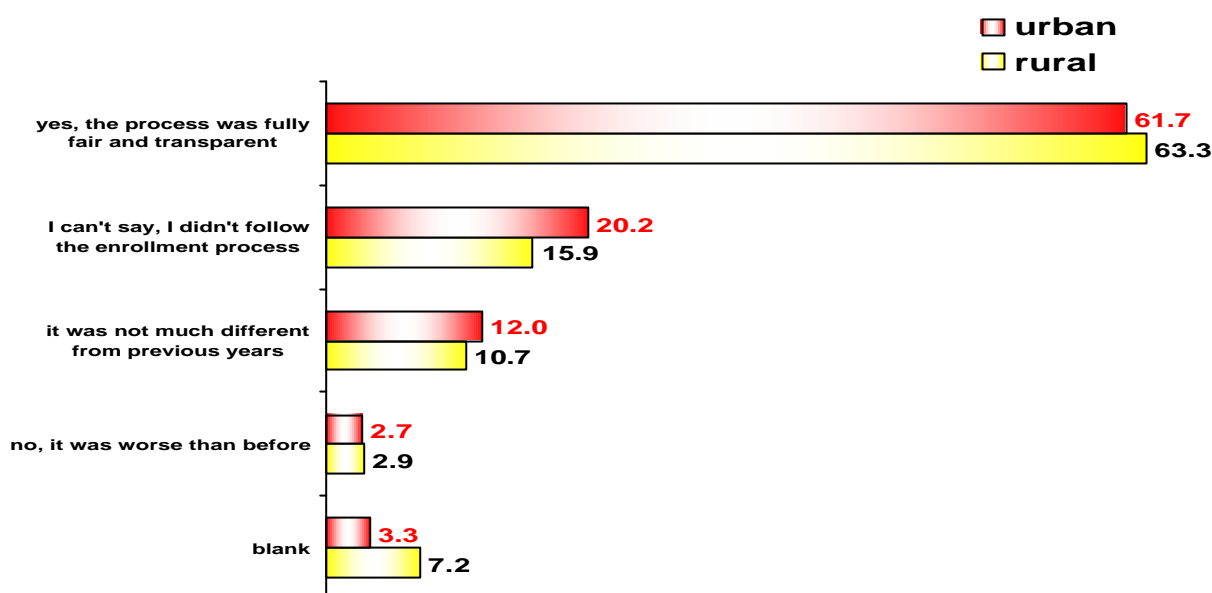
14. Do you think the National Scholarship Test has influenced teaching in schools?
(%)



Enrollment and the Quota System (charts 15 & 16)

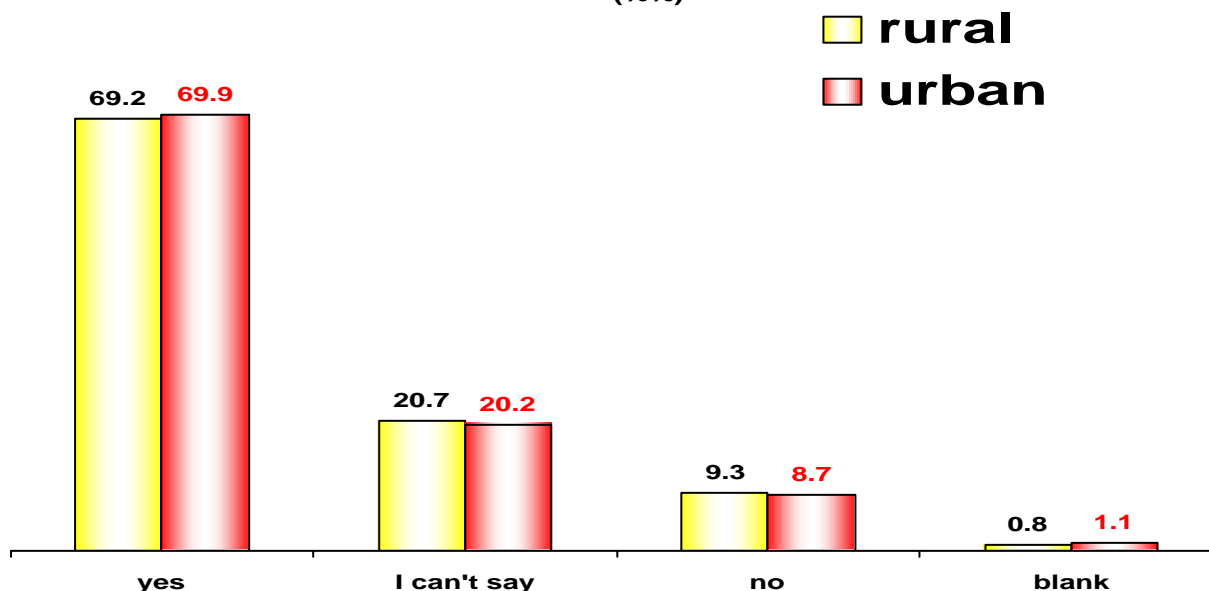
Technically, school directors were not involved in the university enrollment process. It should be acknowledged that much of their opinion as to its fairness is based upon a general perception, perhaps based upon conversations with students and parents or their own children. In response to question 15 (“Do you think that the enrollment process was fair and transparent?”), 20.2% of urban directors and 15.9% of rural directors reported that they did not follow the enrollment process. However, of those who did follow the process (716 respondents who answered “yes, no different, or worse”), 82% of all directors reported that the enrollment process developed by American Councils (sealed “ballot boxes”) was “...fully fair and transparent.” Fourteen percent of all respondents who followed the process reported that the new process “was not much different from previous years.” Only 4% of those who followed the process reported that “it was worse than before.”

15. Do you think the enrollment process in 2003 was fair and transparent?
(%)



In question 16 (“Do you think that the new quota system is efficient?”), 69% of both rural and urban respondents noted that thought the quota system was efficient.¹⁰ Approximately 20% of both urban and rural respondents noted that they “could not say” how well the system worked. Only 9% of those surveyed noted that the quota system was not efficient.

16. Do you think the new quota system is efficient?
(%%)



¹⁰ Through the quota system, each student was assigned a category (Bishkek, Small City, Oblast Center, Village, Disability). Each student competed for a scholarship only with those students with the same designation. For more on the quota system, see “Results of the National Scholarship Test: 2003, A First Look,” produced by American Councils for USAID and other stakeholders.



Challenges in Data Collection

Despite challenges in data collection and the evitable margin of error in data reporting, the fact that 50% of all directors in the KR responded to the survey has provided us both reasonably accurate data on testing and enrollment as well as an overall picture of directors' attitudes towards the new system. In most regions, school directors keep up with the data on university entrance. Some regional departments of education request this information from them on a yearly basis. Thus, most schools actively maintain files and follow-up with their students after they leave schools. However, some schools do not, and their knowledge is anecdotal or incomplete. This is seen, for example, in questions fifteen and sixteen where sizable portions of the sample population selected 'I can't say.' In order to better track and maintain data on demographics and higher education, the project team intends to work with the Ministry of Education and other stakeholders to discuss ways to improve data collection so that valuable information impacting the education system as a whole can be collected and utilized for systems improvement at all levels.

Conclusion

As can be seen from the responses, overall the perception of the new system is a very positive one. On the whole, school directors perceive the Scholarship Testing system as fair and efficient. It has had a positive effect on student and teacher motivation. And, it redresses territorial and urban/rural imbalances in university admittance. The most significant finding of the survey is that the directors noted the increase in the number of rural schools throughout the Kyrgyz Republic (KR) with at least one or more student earning a full government scholarship for higher education since the project's inception. This result goes a long way towards explaining the strong stakeholder support for independent testing. As the survey indicates, this key stakeholder community both understands and supports the utilization of a non-governmental agency to perform a task that had previously been undertaken exclusively by state agencies. At this point, American Councils recommends that USAID capitalize on this popular support for the new testing and enrollment system and harness it for productive change in other areas (creation of standards, materials, teacher training, as well as assessment). By building upon the successes of the NST program, other reforms can be leveraged for systemic impact on the education system throughout the Kyrgyz Republic.